

METHOD TO IDENTIFY VACCINES

5 The present invention calls utilized genes differentially expressed in target
cells to design vaccines to generate an immune response. Unlike prior art methods
that seek to identify antigenic proteins from phenotypic analysis, the subject method
applies functional genomics for antigen identification. The method is exemplified
herein and therefore provides compositions and methods for inducing an immune
10 response against gp100 melanoma cells and for inducing an immune response
against HER-2⁺ cells. Cancer vaccines and adoptive immunotherapeutic methods to
treat and prevent conditions associated with the presence of these cells in a subject
also are provided. The methods can be practiced by administering the appropriate
gene or cancer vaccine, antibody, protein, polypeptide, antigen-presenting cell or
15 immune effector cell.